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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

REPORT

CD NO.

COUNTRY	Germany (Russian Zone)	DATE DISTR.	20 Nov. 1951
SUBJECT	Aluminum Plating Plant at the VEB Steel and Rolling Mill Brandenburg, Brandenburg/Havel	NO. OF PAGES	2
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THIS IS UNEVALUATED INFORMATION 50X1-HUM

1. At the end of April 1951 an aluminum plating plant for armor plate and sheeting was set up at the Steel and Rolling Mills, Brandenburg/Havel under the direction of Dr. Kuntscher, leading East Zone metallurgist, Dr. Alfred Leichner, Czechoslovakian specialist from the metal refining plant, TATRA*, and the Russian engineer, fnu Davidov.

2. The function of this new plant is to provide steel with a smooth, noncorrosive plating of aluminum alloy. The color of this plating dispenses with the need for camouflage paint and in the case of sea-going craft, it has the additional advantage of keeping them operational three times as long before returning them to dry dock for cleaning.

3. Plywood delivered from the CSR is also being plated with aluminum alloy. This so-called "armored wood" (Panzer-Holz), which is springy and even pliable, is produced in dimensions of 600 x 1200 mm and 800 x 1600 mm and has a smooth surface. It is delivered in sealed freight cars to Brest Litovsk as top priority. Only Polish rolling stock is used for this purpose. In Brest Litovsk consignments are unloaded for transmission to the USSR, where it is used principally for aircraft construction and ship-building.

4. In the Steel and Rolling Mills, Brandenburg/Havel, arrangements are now made for the mass production of steel and wood plated with aluminum alloy.

5. Successful tests were concluded by the above-mentioned specialists at the end of March 1951. During experiments the electric glow furnaces (Glühöfen) for aluminum and its alloys proved inadequate as the process calls for a required constant temperature which could not be maintained. In addition, the output of the plants' own power station was already fully absorbed.

6. On the advice of the supervising experts it was decided to dispense with the electric furnaces by replacing gas-heated ones. As the new gas-heated furnaces could only operate on high-grade gas, a gas generating plant was ordered from the firm of Julius Pintsch, Berlin and Fuerstenwalde/Spree which would answer the requirements. At the beginning of April 1951 this firm installed an automatic (one-man) operating gas plant with a daily capacity of 5,000 cu.m. The necessary coal supplies for the gas plant came exclusively

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from the Waldenburg area in Silesia. A gas specialist by the name of Bruns, with 30 years experience, is responsible for the entire gas plant and its output of absolute uniform quality and pressure. He is provided with a small laboratory with all necessary pressure and testing apparatus.

7. Plating is done with a gas-heated roller (Warmwalze) with a temperature between 450 and 520 degrees** under high pressure, (research to use higher temperature is still in progress) resulting in an inseparable aluminum plating.

8. Through special contact material, chemical and electrical properties are obtained as desired. Throughout, the plated material retains the mechanical consistency of the basic material while gaining the special properties of the plating.

9. Plating is done on one or both sides with pure aluminum or with aluminum alloys depending on the subsequent use of the material. In almost all cases aluminum with copper content is used in the contact material but its exact composition is a secret.

* [redacted] Comment: The Tatra National Corporation in Czechoslovakia does not have a metal refining plant as such. Subject may come from any one of the TATRA subsidiaries or from the metal refining plant of a different combine. 50X1-HUM

** [redacted] Comment: Temperature unit not specified. 50X1-HUM